

REMARKS

Claims 1-23 are pending in the current application. Applicants have amended claims 1, 5, and 6. Reexamination and consideration of all pending claims, as amended, are respectfully requested.

§ 103

The Office Action rejected all pending claims under 35 U.S.C. § 103(a) based on Muller, U.S. Patent 6,271,925, (“Muller”) in view of Elssner et al, DD 261422 (“Elssner”), and in certain instances in view of other references.

Missing Elements – Plurality of Reflective Surfaces

The Office Action contends that Mueller “shows ‘a plurality of reflective surfaces for receiving light energy from said diffraction grating’ by interpreting surfaces 90 and 91 as the reflective surfaces thus meeting the limitations of claim 1...” Office Action, p. 2. Applicants disagree that Muller shows such a device, and that the specimen surfaces 90 and 91 are not the “reflective surfaces” recited in the independent claims, including independent claim 1.

Claim 1 previously included the following limitations:

a plurality of reflective surfaces for receiving light energy from
said diffraction grating;

at least one second diffraction grating for receiving light reflected
from said specimen and from each reflective surface;

(emphasis added).

The specimen represents one physical structure, while the plurality of reflective surfaces represents structures that are separate and distinct from the specimen. Use of the phrase “receiving light reflected from said specimen and from each reflective surface” indicates that the specimen and reflective surface are different and distinct elements, and thus the specimen cannot

be considered the reflective surface. Surfaces 90 and 91 thus cannot be reflective surfaces, and reading them as such is improper. Simply put, there is no “plurality of reflective surfaces” either disclosed or suggested by Muller and/or Elssner, either alone or in combination.

Nonetheless, Applicants have clarified the foregoing by amending claim 1 to eliminate any question or issue whatsoever, expressly reciting that the plurality of reflective surfaces are separate from the specimen. Applicants have further amended claim 1 to include reference to the second diffraction grating being parallel to the specimen and reflective surfaces. Neither the Elssner reference nor the Muller reference satisfies this limitation.

With respect to claim 11, the limitations include “directing said diffracted light energy toward both sides of said specimen and *toward a plurality of reflective surfaces each mounted substantially parallel to said specimen...*” (emphasis added). This limitation is absent from the suggested combination. As noted, the reflective surfaces cannot be the specimen, and represent surfaces separate and distinct from the specimen. Further, the language of the aforementioned limitation requires that the reflective surfaces be mounted “parallel to” the specimen, further demonstrating that the reflective surfaces are not the specimen. In short, the Muller reference does not disclose nor suggest the use of reflective surfaces, and the Elssner reference single channel design does not disclose nor suggest directing diffracted light energy toward both sides of the specimen and both sides of a plurality of reflective surfaces.

With respect to claim 17, missing from the purported combination of Muller and Elssner is, *inter alia*, “a plurality of reflecting surfaces, *each reflecting surface mounted substantially parallel to said specimen* and receiving nonzero order energy from said light energy splitting device.” (emphasis added). Again, this statement emphasizes that the reflective surfaces are separate and distinct from the specimen, and here are mounted parallel to the specimen. Also, the Muller reference does not disclose nor suggest reflective surfaces, and the Elssner single channel design does not disclose nor suggest directing light energy toward both sides of the specimen and both sides of a plurality of reflective surfaces.

Applicants therefore respectfully submit that the independent claims, as amended, include elements not shown in the cited references.

Combining References

Regarding combining Elssner with Muller, Applicants again state simply that the dual channel/dual reflective surface/dual sided inspection design is entirely missing from Elssner. Reflective surfaces are altogether absent from Muller. Neither Muller nor Elssner disclose nor suggest a plurality of reflective surfaces for inspecting both sides of a dual sided specimen as presently claimed. It is only by resorting to the teachings of Applicants that such a combination is possible.

As previously stated, it is difficult, if not impossible, to see how the Elssner reference or its teachings could be used in the configuration suggested to scan both sides of a two sided specimen according to the language of the claims. Elssner indicates scanning of one side of a specimen P using two holograms and an illuminator. To the extent that both sides of the surface P could somehow be scanned using the teachings of Elssner, such a device would likely require multiple illuminators and/or multiple sets of holograms, and would not conform to the claim language. For example, such an arrangement, if it could be designed, would not have a second diffraction grating for receiving light reflected from said specimen and from each reflective surface in a “plurality of reference surfaces” situation and as required by the current claims. In short, it is impossible to see how the Elssner teaching could be employed in the Muller teaching to perform a scan of both sides of a dual sided specimen, without resorting to the teachings of Applicants.

Applicants again contend that there appears to be no motivation to combine the Muller interferometer with the Elssner system. Muller neither discloses nor suggests a plurality of reflective surfaces as claimed. Elssner does not disclose or suggest inspecting both sides of a dual sided specimen, collimating light into two separate channels, or receiving light energy transmitted from each channel and passing nonzero order light energy toward the specimen as presently claimed.

On combining Muller with Elssner, the Office Action states, as a basis for combining the references, that “one of ordinary skill would have been motivated...in order to obtain better surface measurements.” Office Action, p. 5. First, this statement does not evidence a

motivation to combine, but rather a desired result (better surface measurements) so broad as to be inapposite and overreaching as a motivation to combine. Applicants would contend that everyone of ordinary skill in the art is motivated to obtain better surface measurements every day they come to work. That is not the test of the motivation to combine for an obviousness analysis. Rather, a specific motivation for combining Elssner with Muller must be articulated – why would someone of ordinary skill combine Elssner with Muller without knowledge of Applicants’ claimed invention? *See, e.g., In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (“particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed”); *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) (“even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious.”)

The Office Action does recite certain reasoning for using a reference surface, but none of the reasons presented can be said to make sense without resorting to the teachings of Applicants. For example, the Office Action states “The use of the reference surface allows for better quality of measurements due to the use of combining a first order diffraction with another first order diffraction rather than combining a first order diffraction with a zero order diffraction, where intensities of the two orders can be different.” Office Action, p. 3. These are the benefits of the current invention as shown by the drawings and specification, e.g. FIG. 1B and related text. “[R]ecombining of beams originating from the same portion of the illumination beam remain constant thus removing errors due to inconsistencies of the original beam.” Office Action, p. 3. Issues with combining beams is discussed by Applicants at, e.g. Specification, page 5, line 7 et seq.:

In general, when a laser beam is split, the optical path difference is the difference in length between the two paths before recombining. If the optical path difference is less than the longitudinal spatial coherence length

of the light beam, interference fringes are formed at the receiving element, or screen. If the optical path difference is greater than the longitudinal spatial coherence length, no interference fringes form.

These statements purport to be motivations to combine the references. In reality, they are no more than characterizations of the benefits provided by Applicants' invention. Thus while the Office Action seeks to provide a motivation to combine Elssner with Muller without resorting to the teachings of the Applicants or resorting to making broad conclusory statements, the Office Action fails to provide such a proper motivation combine.

The alleged motivation to combine Elssner with Muller in that "one of ordinary skill would have been motivated...in order to obtain better surface measurements" is overly broad and conclusory. "Whether the Board relies on an express or an implicit showing, it must provide particular findings related thereto. *Broad conclusory statements standing alone are not 'evidence.'*" *In re Kotzab*, 217 F.3d at 1371 (emphasis added), *citing In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Also, recitation of the teachings of Applicant are not adequate evidence.

Applicants submit that persons of ordinary skill would not have been motivated to combine these references based on the references themselves, without resorting to the teachings of Applicants. Further, the Office Action presents no appropriate basis or findings for such a motivation to combine the Muller and Elssner references.

Despite the allegation in the Office Action, it remains unclear from the actual references, or other relevant tangible evidence, how or why one would combine the references to form the design currently claimed by Applicants as alleged by the Office Action. Aspects of the Muller design, such as inspection of both sides of the specimen, could not readily be employed in Elssner. Further, it is unclear whether the holograms of Elssner could operate in the Muller design, and in particular operate with the Muller design to perform a dual sided inspection of a specimen.

Applicants specifically note that the angle of emission of light from the Elssner hologram H1 drastically differs from both the light path emissions of the Muller design and the current design, tending to teach away from use of the Elssner hologram from the Muller interferometer. Again, use of Elssner to scan both sides of a dual sided specimen in conformance with the language of the claims requires a design neither disclosed nor suggested by either reference, but instead would only be obvious after looking at the teachings of the Applicants. In short, there is no motivation nor reason for combining the references in the manner suggested present within the references themselves, but instead all that has been presented is an improper attempt to use specific limited ideas from each reference to deprecate the claimed invention.

Applicants respectfully submit that the Examiner has used hindsight in rejecting the claims herein. It is only through hindsight, after seeing Applicants' disclosure, that it would be considered possible to create the hearing aid design as claimed by the Applicants.

With regard to the use of hindsight, or the use of an Applicant's teaching to combine references, the courts have overwhelmingly condemned such combinations and have upheld the validity of patents or claims of patents in which such hindsight was employed to combine the references. *W.L. Gore Associates, Inc. v. Garlock, Inc.*, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983), (condemning the "insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher"); *In re Fine*, 837 F.2d 1044, 1051 (Fed. Cir. 1988) ("One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.") Applicant respectfully submits that combination of aspects of the Muller reference with the Elssner design is merely a hindsight reconstruction of the invention using Applicants' disclosure and claims as a guide. Such hindsight reconstruction of the claimed system is inappropriate

Based on the foregoing, Applicants respectfully submit that claims 1, 11, and 17, as amended, are allowable over the references of record, and that all claims dependent from these independent claims are allowable as they depend from an allowable base claim.

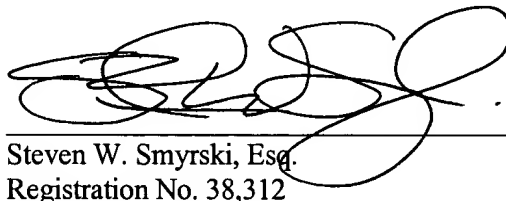
Accordingly, it is respectfully submitted that all claims fully comply with 35 U.S.C.
§103.

CONCLUSION

In view of the foregoing, it is respectfully submitted that all claims of the present application are in condition for allowance. Reexamination and reconsideration of all of the claims, as amended, are respectfully requested and allowance of all the claims at an early date is solicited.

Applicants believe that no fees are due in accordance with this Response beyond those included herewith. Should any fees be due, the Commissioner is hereby authorized to charge any deficiencies or credit any overpayment to Deposit Account 502026.

Respectfully submitted,



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